

REMARKS

This Amendment is submitted in response to the March 8, 2006 Office Action issued in connection with the above-captioned patent application. By this Amendment, claims 1, 20 and 26 have been amended. Claims 12, 13 and 19 stand withdrawn. Upon entry of this Amendment, the pending claims will be amended independent claim 1, with claims 2-11 and 14-18 depending therefrom; amended independent claim 20, with claims 21-25 depending therefrom; and amended independent claim 26, with claims 27-28 depending therefrom. No new matter has been added. It is respectfully requested that the Examiner review and reconsider the pending claims in view of the following remarks.

In the Office Action claims 12, 13 and 19 have been withdrawn from consideration and that the remaining claims 1-11, 14-18 and 20-28 stand rejected. With regards to the rejected claims, the Office Action states that claims 1-11, 15-18 and 20-28 stand rejected as allegedly anticipated by U.S. Patent No. 6,186,980 (Brunel), and claim 14 stands rejected as allegedly anticipated from Brunel. For the following reasons, applicants respectfully traverse these rejections.

Applicants' invention is directed to a safety shield system for a syringe. The safety shield system is configured to cause a needle cannula connected to a front end of the syringe to retract within the safety shield at the conclusion of an injection and when pressure is released from the plunger of the syringe, such that the tip of the needle cannula is irremovably contained within the safety shield. In accordance with one embodiment of the invention and as depicted in the figures, a syringe assembly 20 having a barrel 24 is positioned within the safety shield body 22 and locked in a first position within the needle cannula tip 128 extending from the safety shield body. The syringe assembly is locked in this first position by a retainer flange clip 44, which is fixed to a rear end of the safety shield. A biasing member, such as a spring 42, is maintained in a compressed state

between a front portion of the syringe barrel, and a front portion of the safety shield, for biasing the syringe assembly in a retracted position away from a forward end of the safety shield body 22. A thumb pad 32 on the plunger assembly 28 is configured to activate the flange clip 44 to cause disengagement of the syringe assembly 20 from the safety shield and, particularly, the syringe barrel 24 from the flange clip. Upon disengagement, the spring urges the syringe assembly into the safety shield body 22 without causing relative movement between the safety shield body 22 and the flange clip 44. In other words, the flange clip does not move in an axial direction with respect to the safety shield body. Rather, rear flexing arms 48 are flexed apart by the thumb pad – without otherwise causing movement of the flange clip – to release the syringe barrel and allow for retraction.

The feature of the flange clip retainer releasably securing the syringe barrel in a first position where the needle cannula tip is exposed from the shield body while maintaining a fixed connection between the retainer and the shield body is now set forth in the amended independent claims. Specifically, amended independent claim 1 now states “a first retainer fixedly coupled to the hollow shield body to prevent axial movement of the first retainer with respect to the hollow shield body”. Similar amendments have been made to independent claims 20 and 26. This feature is neither taught nor suggested by Brunel.

Turning now to Brunel, this reference discloses a safety device for a syringe which uses the thumb pad of the syringe plunger to activate a release mechanism for causing the syringe to retract into a protective sheath. The primary components of the safety device are the syringe assembly with thumb pad or “thruster” 6, protective sheath 7, and locking ring 24. The locking ring secures the syringe in a position with respect to a protective sheath 7 such that the syringe can be used in the intended manner. The locking ring 24 is releasably mounted to the protective sheath 7 via locking tabs 26. Specifically, the locking ring is dimensioned to slide within the rear body section 9 of the

protective sheath 7 via outer ribs 27 which snap into grooves 10 on the rear body 9 of the protective sheath 7 (Col. 6, lines 35-38 and FIG. 13). At the completion of an injection stroke, the thumb pad 6 engages the ends of locking tabs 26 and directs them radially inward. This motion disengages the outer ribs 27 from the grooves 10, thereby allowing a biasing spring to exert force on the locking ring 24 to cause it to move in an axial direction within the protective sheath 7, i.e. in a direction away from the leading edge of the protective sheath. Because the locking ring is affixed to the syringe barrel, the spring force on the locking ring 24 also causes the syringe and needle cannula to retract into the protective sheath 7.

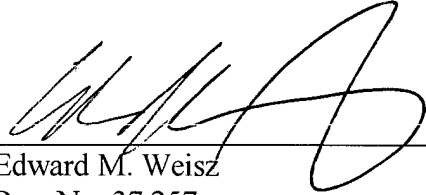
In contrast to Brunel, the devices now recited in applicants' amended independent claims do not require movement of the retainer flange clip 44 with respect to the shield and body 22. Rather, the flange clip 44 is "fixedly coupled to the hollow shield body to prevent axial movement of the retainer with respect to the hollow shield body". Because this feature is neither taught nor suggested by Brunel, amended independent claims 1, 20 and 26 are patentable over Brunel.

Inasmuch as independent claims 1, 20 and 26 are believed to be patentable over Brunel, the dependent claims are also believed to be patentable over Brunel for at least the reasons discussed above.

For all of the foregoing reasons, it is believed that all pending claims are now in condition for immediate allowance.

It is believed that no fees or charges are required at this time in connection with the present application. However, if any fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,
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